National Institute of Environmental Health Sciences

Climate change, humidity, and mortality in the United States

Author(s): Barreca AI
Year: 2012
Journal: Journal of Environmental Economics and Management. 63 (1): 19-34

Abstract:

This paper estimates the effects of humidity and temperature on mortality rates in the United States (c. 1973-2002) in order to provide an insight into the potential health impacts of climate change. I find that humidity, like temperature, is an important determinant of mortality. Coupled with Hadley CM3 climate-change predictions, I project that mortality rates are likely to change little on the aggregate for the United States. However, distributional impacts matter: mortality rates are likely to decline in cold and dry areas, but increase in hot and humid areas. Further, accounting for humidity has important implications for evaluating these distributional effects. (C) 2011 Elsevier Inc. All rights reserved.

Source: http://dx.doi.org/10.1016/j.jeem.2011.07.004

Resource Description

Climate Scenario :

specification of climate scenario (set of assumptions about future states related to climate)

Other Climate Scenario

Other Climate Scenario: SRES A1F1

Exposure :

weather or climate related pathway by which climate change affects health

Meteorological Factors, Temperature

Temperature: Extreme Cold, Extreme Heat, Fluctuations

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

United States

Health Impact:

specification of health effect or disease related to climate change exposure

Cancer, Cardiovascular Effect, Morbidity/Mortality, Other Health Impact

Cardiovascular Effect: Other Cardiovascular Effect

Cardiovascular Disease (other): cardiovascular disease mortality

Other Health Impact: Cancer mortality

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Model/Methodology: ☑

type of model used or methodology development is a focus of resource

Outcome Change Prediction

Resource Type: ☑

format or standard characteristic of resource

Research Article

Timescale: ☑

time period studied

Long-Term (>50 years)

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content